

Claims:

1. A gas nozzle for a welding torch, which is made of copper or a copper alloy, characterized in that it comprises an artificially produced patina layer (8) at least on a partial area of its surface.
2. A welding torch including a gas nozzle, a nozzle assembly and a contact tube, wherein the gas nozzle and/or the nozzle assembly and/or the contact tube are made of copper or a copper alloy, characterized in that the gas nozzle (2) and/or the nozzle assembly (3) and/or the contact tube (4) comprise an artificially produced patina layer (8) at least on a partial area of the respective surface.
3. A gas nozzle and a welding torch according to claim 1 or 2, characterized in that said patina layer (8) has a thickness ranging between 50 and 200  $\mu\text{m}$ .
4. A gas nozzle and a welding torch according to one or several of preceding claims 1 to 3, characterized in that said patina layer (8) is provided over the entire surface.
5. A cleaning device for a welding torch and, in particular, its gas nozzle, which includes a brush provided with bristles for cleaning the welding torch of weld spatter, characterized in that the bristles (9) of the brush (7) are formed of a very soft, elastic material, preferably a synthetic material, and that abrasives (11) are embedded in the bristles (9).
6. A cleaning device according to claim 5, characterized in that the bristles (9) are provided with a coating (10) in which said abrasives (11) are embedded.
7. A cleaning device according to claim 5 or 6, characterized in that the diameter (12), or outer periphery, of the brush (7) is larger than the diameter (13), or outer periphery, of the gas nozzle (2) of the welding torch (1).
8. A cleaning device according to any one of claims 5 to 7,

characterized in that the bristles (9) of the brush (7) have a length ranging between 15 mm and 50 mm.

9. A cleaning device according to one or several of preceding claims 5 to 8, characterized in that the central axis (14) of the brush (7) in the cleaning position is arranged in alignment with the central axis (15) of the gas nozzle (2) and welding torch 1, respectively.

10. A cleaning device according to one or several of preceding claims 5 to 8, characterized in that the central axis (14) of the brush (7) in the cleaning position encloses an angle (16) of between  $120^{\circ}$  and  $160^{\circ}$  with the central axis of the gas nozzle (2) and welding torch (1), respectively.

11. A cleaning device according to one or several of preceding claims 5 to 10, characterized in that the brush (7) carries out a rotational movement in respect to the gas nozzle (7) and welding torch (1), respectively, preferably in the counter direction to an optional rotational movement of the gas nozzle (7) and welding torch (1), respectively.

12. A cleaning device according to claim 11, characterized in that the brush (7) carries out an eccentric rotational movement.

13. A cleaning device according to one or several of preceding claims 5 to 13, characterized in that the bristles (9) have different lengths with different coherent regions being preferably provided.

14. A cleaning device according to claim 13, characterized in that the bristles (9) in a region in the center of the brush (7) are shorter than in the peripheral edge region or vice versa.

15. A cleaning device according to claim 13, characterized in that the region of the brush (7) corresponding to the projection of the gas nozzle (2) has shorter bristles (9) than the remaining region of the brush (7).

16. A cleaning device according to one or several of preceding

claims 5 to 16, characterized in that the bristles (9) of the brush (7) are comprised of one, or a combination, of the materials silicon carbide, polyvinyl chloride, nylon, polyamide, polypropylene, polyethylene or fibre.

17. A cleaning device according to one or several of preceding claims 5 to 15, characterized in that the bristles (9) are designed to be corrugated or plaited.

18. A cleaning device according to one or several of preceding claims 5 to 17, characterized in that a projection surrounding the bristles (9) over a partial region of their length is arranged in the edge region of the brush (7).